

EDEL'SHTEYN, G.L., prof.; SMIRNOVA, Ye.Ye.; GORBUNOVA, Z.K.

Etiology of scoliosis and kyphoscoliosis. Zdrav. Kazakh. 21 no.1:
12-16 '61. (MIRA 14:3)

1. Iz kafedry travmatologii i ortopedii (zav. - professor G.L.
Edel'shteyn) Kazakhskogo meditsinskogo instituta i Sverdlovskogo
instituta travmatologii i ortopedii.

(SPINE-ABNORMALITIES AND DEFORMITIES)

EDEL'SHTEYN, G. L., prof.; UDALOVA, N. F., nauchnyy sotrudnik;
GORBINOVA, Z. K., nauchnyy sotrudnik; SMIRNOVA, Ye. Ye., starshiy
nauchnyy sotrudnik

X-ray characteristics of lateral curvature of the spine. Zdrav.
Kazakh. no.4:19-23 '62. (MIRA 15:6)

1. Iz Sverdlovskogo Nauchno-issledovatel'skogo instituta trav-
matologii i ortopedii (direktor - kandidat meditsinskikh nauk
Z. P. Lubagina) i Kazakhskogo meditsinskogo instituta (direktor -
professor R. I. Samarin)

(SPINE--ABNORMALITIES AND DEFORMITIES)

ACC NR: AP6021826

(A)

SOURCE CODE: UR/0413/66/000/012/0135/0135

INVENTORS: Gubin, A. I.; Dobkina, Ye. N.; Smirnova, Yu. A.

ORG: none

TITLE: A solder for soldering of products. Class 49, No. 183037

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 12, 1966, 135

TOPIC TAGS: solder, soldering, tin, antimony, copper, silver

ABSTRACT: This Author Certificate presents a solder containing tin, antimony, copper, and silver for soldering products. To obtain soldered joints resisting corrosion at all climatic conditions, the composition is taken in the following percent relation: antimony 1 ± 0.3 ; copper 2 ± 0.3 ; silver 5 ± 0.3 ; tin—the remainder.

SUB CODE: 13/ SUBM DATE: 08Jun64

Card 1/1

UDC: 621.791.35

TABLE I BOOK EXPLOITATION

807/555

Vesopriyut secret nuchno-tekhnicheskikh obshchestv
Nauk i tekhnologii korrozii i korrozii metallov v neopredelennom sostoyanii
(Interpretation and Stress Corrosion of Metals) Moscow, Nauka, 1980.
358 p. 3,000 copies printed.

Ed.: I.A. Levin, Candidate of Technical Sciences; Ed. of Publishing House:
L.I. Lavchenko, Engineer; Tech. Ed.: V.D. El'vinskiy, Managing Ed. for
Publishing House: V.I. Kuznetsov, Engineer; Ed. of Publishing House:
G.I. Kuznetsov, Engineer; Ed. of Publishing House: V.I. Kuznetsov, Engineer;
(G.I. Kuznetsov, Engineer; Ed. of Publishing House: V.I. Kuznetsov, Engineer;
Candidate of Technical Sciences, V.M. Nikitov, Candidate of Technical
Sciences.

REMARKS: This collection of articles is intended for technical personnel concerned
with problems of corrosion of metals.

CONTENTS: The collection contains discussions of interpenetrating corrosion of
metals and stress corrosion of carbon steels, low-alloy steels and
aluminum alloys, and light-weight and porous alloys. The tendency of local
corrosion to develop in various forms of corrosion is discussed. The
mechanism of corrosion and corrosion under various conditions is discussed
and the nature of corrosion and corrosion cracking is analyzed. No personalities
are mentioned. Most of the articles are accompanied by bibliographic references,
the majority of which are Soviet.

V. STRESS CORROSION OF INTERMETALLIC AND INTERMETALLIC ALLOYS

Temel'tsev, A.D., Doctor of Chemical Sciences, Professor, and V.M. Yel'shteyn,
Candidate of Chemical Sciences. Effect of Stress on the Corrosion and Potentials
of the Magnesium-Magnesium Alloy System

275

Chernov, M.A., Candidate of Technical Sciences. The Nature of Corrosion
Cracking of Magnesium Alloys and Protective Measures

289

Rumyantsev, V.V., Candidate of Chemical Sciences. Effect of Certain Factors
on the Tendency of Magnesium Alloys Toward Corrosion Cracking

312

Mukherjee, I.N. Stress Corrosion of the High Electrical Resistance Magnesium-
Base Alloy

318

Yoshimura, I.M., Y.D. Pilyayev, and A.I. Kravtsovskiy. Effect of
Mechanical Strain on the Electrode Potential of Copper

321

Rehder, A.V., Candidate of Technical Sciences. The Tendency of Copper
Alloys to Crack Depending Upon Their Composition

329

Black, D.H., Candidate of Chemical Sciences. Corrosion Cracking of Brass
in Various Climatic Zones of the USSR

345

[Soviet] Institute of Technical Sciences, and AS USSR (Corrosion Department
of the Institute of Physical Chemistry AS USSR) and
Moscow (State Design and Planning Scientific Research Institute for
Workshop of Nonferrous Metals) conducted joint research on this subject.
A. I. Kuznetsov, Candidate of Technical Sciences and Yu. A. Sel'mov, Senior
Scientific Worker, participated in the work on behalf of the latter
Institute.]

Gerasimov, A.Ye., Candidate of Technical Sciences, and Yu. A. Sel'mov,
Senior Scientific Worker. On the Problem of Short-Time Testing of Brass
Resistance to Corrosion Cracking

349

Kalashnikov, S. I. and N. P. Kichin, Engineers. Detection of Interpenetrating
Corrosion in Aluminum Alloys with the Dye Penetrant Free Detection Method.

352

Card 3/9

152

KLARK, G.B.; GOPIUS, A.Ye.; SMIRNOVA Yu.A.

Effect of climatic conditions on the corrosion cracking of brass.

Trudy Inst.fiz.khim. 8:110-129 '60. (MIRA 14:4)

(Brass--Corrosion) (Corrosion and anticorrosives--Climatic factors)

L 12979-63 EPR/EMP(j)/EPF(c)/EWT(m)/BDS AFPTC/ASD Ps-4/Fr-4/Pc-4 RM/WW
ACCESSION NR: AP3000524 S/0020/63/150/002/0359/0360

AUTHOR: Zubov, P. I.; Sukhareva, L. A.; Smirnova, Yu. P. 70

TITLE: Influence of internal stresses on "longevity" of polymer coatings 15

SOURCE: AN SSSR. Doklady, v. 150, no. 2, 1963, 359-360

TOPIC TAGS: internal stresses, polymer coatings, aging

ABSTRACT: Dependence of duration on the adhesive stress of polyester coatings has been measured by optical method using automatic recording apparatus, described by P. I. Zubov and L. A. Lepilkina (Vestnik AN SSSR, no. 3, 49, 1962). Authors conclude by stating that there is a linear relationship between the duration of adhesion of a coating and internal stresses during a change in the sublayer's stresses within the limits from 30 to 8 kilograms per square cm. Orig. art. has: 3 figures and 1 formula.

ASSOCIATION: Institut fizicheskoy khimii Akademii nauk SSSR (Institute of Physical Chemistry, Academy of Sciences SSSR)

SUBMITTED: 24Jan63
SUB CODE: CH
Card 1/1

DATE ACQ: 12Jun63
NO REF SOV: 007

ENCL: 00
OTHER: 001

L 37030-65 EPA(s)-2/EWT(m)/EPF(c)/EWP(v)/EPR/EPA(w)-2/EWP(j)/T
 Pc-4/Pab-10/Pr-4/Ps-4/Pt-10 WW/RM
 ACCESSION NR: AP5009222 S/0020/65/161/001/0099/0102

AUTHOR: Andrianov, K. A. (Academician); Yemel'yanov, V. N.;
Sukhareva, L. A.; Smirnova, Yu. P.; Zubov, P. I.

TITLE: Synthesis and physical and mechanical properties of films
 from polymers with regular structure

SOURCE: AN SSSR. Doklady, v. 161, no. 1, 1965, 99-102

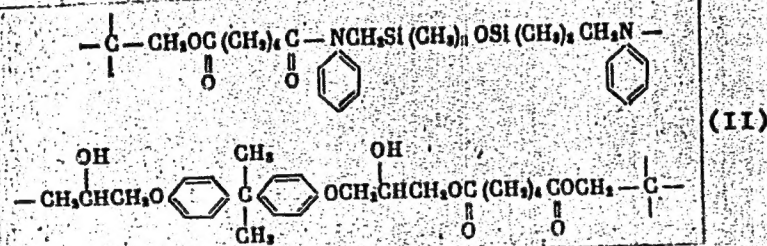
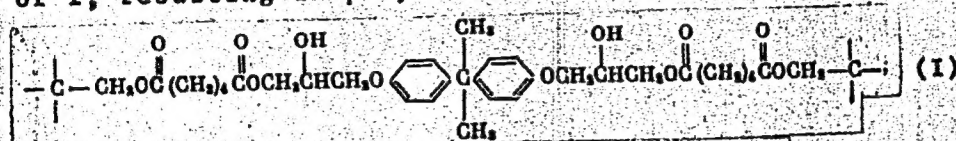
TOPIC TAGS: polymer, regular structure, regular structure polymer,
 epoxy polymer, polyester-epoxy polymer, silicon containing poly-
 esteroamidoepoxy polymer

ABSTRACT: The purpose of the work was to synthesize and study poly-
 esteroepoxy and silicon-containing polyester-amidoepoxy polymers of
 a regular cyclonit structure, which could be used for coatings,
 electric insulation, or as binders for glass-reinforced plastics.
 Polyester-epoxy polymers were obtained by reacting pentaerythritol
 tetraadipate with glycidol-hydroquinone or with glycidol-diphenylol-
 propane ("Bisphenol A") (See I below) diethers. Silicon-containing

Card 1/4

L 37030-65
ACCESSION NR: AP5009222

polyesteroamidoepoxy polymers of regular structure were prepared in two stages: in the first stage, pentaerythritol tetraadipate was condensed with bis-(phenylaminomethyl)-tetramethyldisiloxane; in the second stage, the resulting polymer which contained phenylamino and carboxyl groups was reacted with a glycidol diether, as in the preparation of I, resulting in polymer (II). Reactions were carried out in



Card 2/4

L 37030-65

ACCESSION NR: AP5009222

2
films on a metal surface. Polymer (III) with an irregular structure was obtained by simultaneous condensation of pentaerythritol, adipic acid and glycidol-Bisphenol A diether. Mechanical and electrical properties of I, II, and III were studied to determine the effect of the structure on these properties. The dependence of inner stresses, adhesion, and elastic modulus on the thickness of the film was found. The above mechanical properties and the tensile strength of I, II, and III and of a commercially used epoxy resin (ED-5), cured with polyethylenepolyamine, were compared. It was found that the tensile strength of polymers with the regular structure is 20—50% higher than that of the irregular polymer, but 1.5—2 times lower than that of the commercially used epoxy resins. However, inner stresses in the coatings from the new film-forming regular polymers are considerably lower. The best physical and mechanical properties are displayed by II films, which have the maximum curing rate, minimum inner stresses and a high tensile strength and adhesion. Films from polymers with the regular structure are moisture proof. Thermal stability of I at 200C is :

15

Card 3/4

L 37030-65

ACCESSION NR: AP5009222

Test duration, hr	24	100	500	900	1500
Weight loss, %	0.76	0.95	3.60	4.20	6.32

Electric properties were determined for I and for a glass-reinforced plastic, in which I was used as a binder. Orig. art. has: 4 formulas, 3 graphs, and 2 tables. [BN]

ASSOCIATION: Institut elementoorganicheskikh soedineniy Akademii nauk SSSR (Institute of Organoelemental Compounds, Academy of Sciences, SSSR)

SUBMITTED: 29Sep64

ENCL: 00

SUB CODE: OC, MT

NO REF SOV: 002

OTHER: 000

ATD PRESS: 3223

Card 4/4

L 22000-66 EWT(m)/EWP(v)/EWP(j)/T/ETC(m)-6 IJP(c) W/RN

ACCESSION NR: AP5024504

UR/0191/65/000/010/0031/0034 28

678.674.06-419:677.521.01.539.219.2 13

AUTHOR: Sukhareva, L. A.; Smirnova, Yu. P.; Zubov, P. I.; Zamotova, A. V.; Khvilivitskiy, R. Ya.

TITLE: Internal strain in reinforced systems based on polyester acrylate binders

SOURCE: Plasticheskiye massy, no. 10, 1965, 31-34

TOPIC TAGS: fiberglass, glass cloth, epoxy plastic, polyester plastic, adhesion, internal stress, bending strength, rupture strength

ABSTRACT: The effect of curing conditions, binder composition and surface treatment of the reinforcing glass on the internal strain, mechanical, and adhesive properties of fiberglass was studied. Two curing rates were used--(1) gradual heating for 19 hours to 200 C and then holding at 200 C for 10 hours, and (2) heating to 200 C in 2 hours and holding for 20 hours. Glass cord treated with paraffin emulsion or with vinyltriethoxysilane and glass cord heat treated at 400-450C were used for reinforcing. A two-component system (epoxy resin and polyester acrylate MD) or a three-component system (epoxy, MD and an unsaturated carboxyl-containing compound) were used as binders. Internal strain was

L 22000-66

ACCESS ON NR: AP5024504

greater across the warp than along the warp. Greater internal strains were produced by the slower curing method. The mechanical characteristics of fiberglass cured by method (2) were generally higher. Physical-mechanical properties and internal strain were lower in fiberglass made of the three-component binder. Paraffin emulsion had little effect on internal strain, while the silane coating increased internal strain in the fiberglass made of the three-component binder. The strength properties of the fiberglass depend on the ratio of the internal strain values to the adhesion of the binder to the glass fiber surface. Fiberglass made of resin based on the carboxyl-containing compound, which has greatest internal strain and least adhesion, is weakest. Greatest strength was obtained with the three-component binder applied to glass cloth treated with vinyltriethoxysilane, where adhesive strength exceeds 200 kg/sq cm and the glass is torn out when the sample is broken. Orig. art. has; 8 figures and 3 tables

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: //

NR REF SOV: 003

OTHER: 000

Card

2/2 BK

SVETLOVA, L. (Leningrad); SMIRNOVA, Z.A. (Leningrad); TARASOVA, N.N.
(Leningrad); SEVENSKAYA, A.A. (Leningrad)

Leishmaniasis in a 3¹/₂-month-old infant. Arkh.pat. 27 no. 1978-79
(MIRA 18:8)
1985.

1. Laboratoriya patologii nervnoy sistemy (zav. - prof. Yu.M. Eshbolitskiy) otdela patologicheskoy anatomii (zav. - akademik N.M. Anichkov) Instituta eksperimental'noy meditsiny AMN SSSR; Patologoanatomicheskoye otdeleniye (zav. - Z.A. Smirnova) i detskoye otdeleniye (zav. N.N. Tarasova) Leningradskoy Oblastnoy klinicheskoy bol'nitsy; kafedra psikhiiatrii Voenno-meditsinskoy ordena Lenina akademii imeni S.M. Kirova (zav. - prof. A.A. Portnov).

PONOMAREV, A.A.: SMIRNOVA, Z.A.

Anatomicoelectrocardiographic parallels in chronic cor pulmonale. Vrach. delo no.1:46-48 Ja'64 (MIRA 17:3)

1. Kafedra gosital'noy terapii (nachal'nik - deystvitel'nyy chlen AMN SSSR, prof. M.S. Molchanov) Voenno-medsinskoy akademii imeni S.M.Kirova i patologoanatomicheskoye otdeleniye (zav. - Z.A. Smirnova) Leningradskoy oblastnoy klinicheskoy bol'nitsy.

MALEYEV, Yevgeniy Fedotovitch; RUDICH, K.N., red.; SMIRNOVA, Z.A.,
red.; SHMAKOVA, T.M., tekhn. red.

[Volcanoclastic rocks] Vulkanoklasticheskie gornye porody.
Moskva, Gosgeoltekhizdat, 1963. 167 p. (MIRA 16:12)
(Volcanic ash, tuff, etc.)

SHCHERBA, M.L. prof.; SHIMOVA, Z.A.; GOLUTIN, V.P.

Clinical variations of amyloidosis. Sov. med. 27 no.11:19-24
M 143 (MIRA 18:1)

1. Iz propedevticheskoy terapevticheskoy kliniki (ispolnyayushchiy obyazannosti zaveduyushchego - prof. M.L. Shcherba)
I Leningradskogo meditsinskogo instituta imeni I.P.Pavlova
i Leningradskoy oblastnoy klinicheskoy bol'nitsy (glavnyy vrach V.N.Suknobskiy).

NIKOLAYEV, Nikolay Ivanovich; SMIRNOVA, Z.A., red.; GUROVA, O.A.,
tekhn. red.

[Recent tectonic movements and their evidence in the structure
and relief of the territory of the U.S.S.R.] Neotektonika i ee
vyrazhenie v strukture i rel'efe territorii SSSR; voprosy re-
gional'noi i teoreticheskoi neotektoniki. Moskva, Gosgeoltekh-
izdat, 1962. 391 p. (MIRA 16:5)

(Geology, Structural)

SIL'VESTROV, V.P.; SMIRNOVA, Z.A.

Errors in the diagnosis and treatment of some complications of
antibacterial therapy. Kaz.med.zhur. no.4:22-27 J1-Ag '62.
(MIRA 15:8)

1. Kafedra gospital'noy terapii (nachal'nik - deystvitel'nyy chlen
AMN SSSR, prof. N.S.Molchanov) Voenno-meditsinskoy ordena Lenina
akademii imeni S.M.Kirova i Leningradskaya oblastnaya klinicheskaya
bol'nitsa (glavnyy vrach -- A.P.Yegorova).
(ANTIBIOTICS--TOXICOLOGY)

SMIRNOVA, Z.A.

Two cases of gastrogenic tetany. Sov.med. 25 no.2:136-138 F '61.
(MIRA 14:3)

1. Iz kliniki gosspital'noy khirurgii (zav. - zasluzhennyy deyatel' nauki Dagestanskoy ASSR prof.M.T.Nagornyy) Dagestanskogo meditsinskogo instituta (direktor - dotsent M.M.Maksudov) i gorodskoy klinicheskoy bol'nitsy (glavnyy vrach B.E.Kot).
(TETANY) (PYLORIC STENOSIS)

247000

40573
S/070/62/007/005/008/014
E132/E460

AUTHORS: Mokiyevskiy, V.A., Smirnova, Z.A., Afanas'yev, I.I.
TITLE: Joining crystals of lithium fluoride by a "dry" method
PERIODICAL: Kristallografiya, v.7, no.5, 1962, 768-772 + 1 plate
TEXT: When two polished crystal surfaces are brought into contact, processes connected with the ordering of the structure lead to the growing together of the crystals. Simultaneously annealing takes place. Hence, birefringence connected with the boundary surface is rarely found. If appreciable plastic deformation takes place on joining the surfaces together, because of the loading on surfaces of small radius of curvature, then slipping occurs and the wide range of orientations of the blocks leads to the formation of a large number of negative crystals at the interface. Large radii of curvature of the surfaces brought together and parallel orientation of the components appear to be the conditions for successful welding. The loading necessary has to be determined experimentally and the uniform distribution of load is one of the necessary conditions for successful joining. The time needed depends on temperature but for the best results subsequent annealing is more important
Card 1/2

SMIRNOVA, Z. A.

Cand Med Sci - (diss) "Medicinal prophylaxis of increased blood loss in subsequent and early post-natal period." Khar'kov, 1961. 15 pp; (Khar'kov State Med Inst); 230 copies; free; (KL, 7-61 sup, 262)

SMIRNOVA, Z.A.

USSR/Meadow Cultivation.

L.

Abs Jour : Ref Zhur - Biol., No 21, 1958, 95876

Author : Smirnova, Z.A.

Inst : Petrozavodskiy University.

Title : Influence of Mineral Fertilizers on Pasture Grass Stand.

Orig Pub : Sb. nauchn. rabot stud. Petrozavodskogo un-ta, 1957, vyp. 4, 111-120.

Abstract : No abstract.

Card 1/1

SMIRNOVA, Z. A.

5/192/57/004/006/016/026
B124/E119

AUTHORS: Dokukina, A. P., Yegorova, Ye. I., Kazennikova, G. V., Kalan-
M. M., Kocheshkov, K. A., Smirnova, Z. A., Talalayeva, T. V.

TITLE: Synthesis and polymerization (copolymerization) of fluoron-
substituted styrenes. 1. Copolymerization of fluoron-
substituted styrenes with vinyl monomers

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 6, 1962, 885 -
890

TEXT: This paper describes the authors' experiments in the production and
characterization of the copolymers of α , β , β' -trifluoro styrene with 2,5-
dimethyl styrene and methyl methacrylate; o-, m- and p-methyl- α , β , β' -
trifluoro styrene with styrene, α , β -difluoro- β' -chloro styrene with
styrene, and 2,5-difluoro styrene. The emulsion used for copolymerization
consisted of 80-85 % water, 2.5 emulsifier (sodium stearate or deate),
and 0.5 % persulfate initiator. The monomer mixture, which was added drop-
wise after heating to 80 - 90°C, contained azoisobutyric acid dinitrile
(0.5 %) as initiator. Eleven copolymers of the above monomers were ob-
tained. Their compositions and properties are given in Table 2. The heat
Card 1/A

Synthesis and polymerization ...

S/190/62/004/006/016/026
B124/B138

resistance of the copolymers thus produced increases with the fluoro-
styrene content in the copolymer. An exception is that of α,β -difluoro-
3'-chloro styrene with styrene, the heat resistance of which is 4°C
higher than that of polystyrene produced under similar conditions. This
is probably due to the low concentration of substituted styrene (16 mole%)
in the copolymer, and to the extremely low molecular weight of the pro-
duct ($M_n = 0.05$). There are 2 tables. The English-language references
are: D. Livingstone, J. Polymer Sci., 20, 485, 1956; M. Prober, J. Amer.
Chem. Soc., 75, 268, 1953.

ASSOCIATION: Institut yssokomolekulyarnykh soedineniy AN SSSR (Institute
of High-molecular Compounds of the AS USSR)

SUBMITTED: April 11, 1961

Table 2: Copolymerization time, yield, composition and intrinsic vis-
cosities of the copolymers. Legend: (A) length, hours; (B) copolymer
yield, %; (C) composition of copolymer (mole%); (D) intrinsic viscosities
of the benzene solutions of copolymers at 20°C; (E) copolymers of

Card 2/6 2

ACCESSION NR: AP4042184

S/0190/64/006/007/1187/1189

AUTHOR: Yegorova, Ye. I.; Smirnova, Z. A.; Dokukina, A. F.

TITLE: Synthesis and polymerization (copolymerization) of fluorinated styrenes. III. Preparation and properties of copolymers of styrenes fluorinated in the vinyl group with vinyl monomers

SOURCE: Vy*sokomolekulyarny*ye soyedineniya, v. 6, no. 7, 1964, 1187-1189

TOPIC TAGS: copolymer, copolymerization, fluorinated styrene, vinyl monomer, thermoplastic copolymer, dielectric copolymer, heat-resistant copolymer, alpha.beta.beta-trifluorostyrene-2.5-dimethylstyrene copolymer

ABSTRACT: The following new copolymers of fluorinated styrenes with vinyl monomers have been synthesized: α,β,β -trifluorostyrene with styrene, 2,5-dimethylstyrene, or 2,5-difluorostyrene; 4-methyl- α,β,β -trifluorostyrene with styrene or 2,5-dimethylstyrene; and 3-methyl- α,β,β -trifluorostyrene, β -fluorostyrene, or α -(difluoromethyl) styrene with styrene. The copolymerization was conducted either in emulsion at 60C (initiators, potassium persulfate and

Card 1/2

ACCESSION NR: AP4042184

azobisisobutyronitrile), or in the liquid phase: 1) with a stepwise increase of temperature from 50 to 170C or 2) at 60C (initiator, azobisisobutyronitrile). The preparation methods, composition, and properties of the copolymers are described. The synthesized copolymers are thermoplastics and dielectrics. They dissolve readily in organic solvents. Emulsion copolymerized products have a higher molecular weight and a higher heat resistance than those copolymerized in the liquid phase. The highest heat resistance (190C) is exhibited by α , β , γ -trifluorostyrene-2,5-dimethylstyrene copolymers. "The authors express their deep appreciation to M. M. Koton for valuable instructions during the discussion of the study and to K. A. Kocheshkov, in whose laboratory the monomers were synthesized." Orig. art. has: 2 tables.

ASSOCIATION: Leningradskiy polytekhnicheskij institut im. M. I. Kalinin (Leningrad Polytechnic Institute)

SUBMITTED: 09Apr62

ATD PRESS: 3055

ENCL: 00

SUB CODE: GC, MT

NO REF SOV: 004

OTHER: 000

Card 2/2

L 31155-86

ACC NR: AP6003423

at various compositions were investigated. Graft copolymers of styrene with styrene copolymers of I, II, and III were produced. Investigated copolymers were prepared by free radical polymerization in bulk, in emulsion, and in solution, as described by M. M. Koton, K. A. Kocheshkov, I. A. Gorshkova, A. F. Dokukina, and Ye. M. Panov (Kokl. AN SSSR, 158, 5, 1120, 1964). Solubility, thermal stability, viscosity limits, and density of copolymers were determined, and their IR spectra are described. Copolymers obtained in bulk process were insoluble and thermally unstable, those prepared in solution were soluble and more thermally stable (100C), while the emulsion process yielded insoluble and thermally very stable products. The authors express their gratitude to K. A. Kocheshkov and Ye. V. Kuvshinsky for valuable comments during evaluation of this work. Orig. art. has: 1 table, 2 figures, and 3 structures.

SUB CODE: 07/ SUBM DATE: 25Feb65/ ORIG REF: 003

Card 2/2

A L 11543-66 EWT(1)/EWT(m)/T/EWP(t)/EWP(b)/EWA(c) JD/LHB

ACC NR: AP6000183

SOURCE CODE: UR/0032/65/031/012/1483/1485

AUTHOR: ^{44,55} Anan'yeva, G. V.; ^{44,55} Smirnova, Z. F.

ORG: none

TITLE: ^{21,44,55} X-ray investigation of the single crystal aggregates

SOURCE: Zavodskaya laboratoriya, v. 31, no. 12, 1965, 1483-1485

TOPIC TAGS: single crystal, x ray, lattice defect, sapphire, ruby, fluorite, goniometer, *crystal structure, x ray investigation, x ray spectrum*

ABSTRACT: The mosaic structure of single crystals was examined with a URS-50I diffractometer. The object of the study was to determine the feasibility of a detailed investigation of structural imperfections in single crystals of sapphire, ruby and fluorite. X ray spectra of single crystals were taken by placing them in a URS-50I diffractometer in such a way that the single crystal surface coincided with the axis of the GUR-3 goniometer. The crystal surface was illuminated with an x ray beam with 5-9 degree horizontal deflection and an unlimited vertical deflection. The x ray photographs were taken successively during 2-3° vertical rotation of the crystal sample with respect to the axis of the GUR-3 goniometer. During the rotation of a sample composed of randomly oriented particles of single crystals, various particles pass

UDC: 548.734

Card 1/2

L 11543-66

ACC NR: AP6000183

through the deflection point. Examination of the series of photographs at various sample positions with respect to the horizontal axis makes it possible to determine the topographical details of the single crystal structure. Orig. art. has: 2 figures.

SUB CODE: 20/ SUBM DATE: 00/ ORIG REF: 001/ OTH REF: 004

HW
Card 2/2

BERZAK, N.A.; BRATEL', I.N.; KAGANOVA, Ye.I.; PLOTITSINA, K.M.; SMIRNOVA, Z.M.

Experience in the detection of cardiovascular pathology in the
compound examination of thoracic organs in rural population. Sov.
med. 28 no.7:93-96 JI '64. (MIRA 18:8)

1. Bol'shechernigovskaya sel'skaya bol'nitsa (glavnyy vrach Z.M.
Smirnova) Kuybyshevskoy oblasti. Nauchnyy rukovoditel' - prof.
V.V.Zodiyev.

LUKASHENKO, N.P.; BRZHESKIY, V.V.; SMIRNOVA, Z.M.

Study on Alveococcus multilocularis (Echinococcus multilocularis)
Leuckart, 1863 chromosomes. Preliminary report. Med. paraz. i
paraz. bol. 34 no.3:351-352 My-Je '65.

(MIRA 18:7)

1. Institut meditsinskoy parazitologii i tropicheskoy meditsiny
imeni Ye.I. Martsinovskogo Ministerstva zdravookhraneniya SSSR,
Moskva.

SMIRNOVA, Z.S.

Results of the investigation of the air of an oil and gas area
as to the presence of hydrocarbon-oxidizing bacteria. Mikro-
biologiya 32 no.1:125-130 '63 (MIRA 17:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologo-razvedochnyy
neftyanoy institut, Moskva.

ACCESSION NR: AP4037056

S/0073/64/030/005/0499/0502

AUTHOR: Sarzhevskaya, V. P.; Kornev, K. A.; Smirnova-Zamkova, S. Ye.

TITLE: Polyamides with aromatic and heterocyclic rings in the chain. IX, Polyamides based on furan-2,5- and thiophene-2,5-dicarboxylic acids and some aryl -aliphatic diamines

SOURCE: Ukrainskiy khimicheskiy zhurnal, v. 30, no. 5, 1964, 499-502

TOPIC TAGS: furan polyamide, thiophene polyamide, aromatic ring, heterocyclic ring, furan ring, thiophene ring, aliphatic diamine

ABSTRACT: The authors refer to their previous work, where they ascertained that the substitution of the furan for the thiophene ring in the acid component results in notably lowered melting point of polyamides based on aliphatic diamines. The present article is a study of the same situation with aryl -aliphatic diamines. Polyamides were prepared by interphase polycondensation from hydrochloric salts of aryl -aliphatic diamines and chloroanhydrides of furan-2,5- and thiophene-2,5-dicarboxylic acids. The following diamines were used in these condensations: p-xylylenediamine, 2,5-di-(aminomethyl)-p-xylene, 4,6-di-(aminomethyl)-m-xylene,

Card 1/2

GROMOV, S.A.; SMIRNOVA, Z.A.

Clinical aspects and histopathology of aneurysms in the
vessels of the brain. Vop. psikh. i nevr. no.9:118-123
'62. (MIRA 17:1)

1. Leningradskaya oblastnaya klinicheskaya bol'nitsa
(glavnyy vrach - A.P. Yegorova).

KOROLEV, Aleksey Vasil'yevich; SHEKHTMAN, Pavel Aleksandrovich;
VOL'FSON, F.I., retsenzent; YERMAKOV, N.P., red.;
SMIRNOVA, Z.A., ved. red.

[Structural conditions governing the distribution of
postmagmatic ores] Strukturnye usloviia razmeshcheniia
poslemagmaticheskikh rud. Moskva, Nedra, 1965. 506 p.
(MIRA 18:4)

ILLARIONOV, V.V.; SMIRNOVA, Z.G.; KNYAZEVA, K.P.

Partial equilibrium pressures of HF, SiF₄, and H₂O above aqueous
solutions. Zhur.prikl.khim. 36 no.2:237-241 F '63. (MIRA 16:3)
(Hydrofluoric acid) (Silicon fluoride) (Vapor pressure)

SMIRNOVA, Z.G.; ILLARIONOV, V.V.; VOL'PKOVICH, S.I.

Heats of formation of fluorapatite, hydroxylapatite, and
tricalcium phosphates (α - and β -modifications). Zhur.
neorg. khim. 7 no.8:1779-1782 Ag '62. (MIRA 16:6)

1. Nauchno-issledovatel'skiy institut udobreniy i insektofungi-
sidov.

(Apatite)	(Hydroxylapatite)
(Calcium phosphate)	(Heat of formation)

SMIRNOVA, Z.I.

Experience in using various types of resilient covering. Tekst.
prom. 16 no.9:24-26 S '56. (MLRA 9:12)

1. Zaveduyushchiy Tsentral'noy laboratoriyey Glavivkhlopproma.
(Spinning machinery)

SMIRNOVA, Z.I.

Testing reconditioned polyvinyl chloride couplings. Tekst.prom. 18
no.4:56-57 Ap '59. (MIRA 11:4)

1. Zaveduyushchiy TSentral'noy laboratoriyey pri tekstil'nom upravlenii
Ivanovskogo sovnarkhoza.
(Spinning machinery--Maintenance and repair)

BEIYAYEVSKIY, N.A.; VARGIN, N.I.; IVANOV, Yu.A.; SMIRNOVA, Z.I.

Results of the conference of geologists of the European part of
the U.S.S.R. Sov. geol. 2 no.6:138-142 Je '59. (MIRA 12:12)

1. Ministerstvo geologii i okhrany neдр SSSR.
(Geology)

SMIRNOVA, Z.I.

Necessity for increasing the effectiveness of geophysical
prospecting for ore deposits. Sov.geol. 4 no.11:174-177
N '61. (MIRA 14:11)

1. Ministerstvo geologii i okhrany neдр SSSR.
(Prospecting)

SMIRN
MATVEYEVA, H.N.; SMIRNOVA, Z.M.; KUSTOVA, Z.M.; VASIL'YEVA, M.V.; GEL'CHINSKIY, B.Ya.; OZEROV, D.K.; MANUKHOV, A.V.; GOL'TSMAN, F.M.; PETRASHEN', G.I., red.; VOLKHOVER, R.S., tekhn. red.

[Papers on the quantitative study of seismic wave dynamic] Materialy kolichestvennogo izucheniia dinamiki seismicheskikh voln. Pod. rukovodstvom i red. G.I.Petrashen'. [Leningrad] Izd-vo Leningr. univ. Vol. 1. 1957. 420 p. Vo.2. 1957. 152 p. (MIRA 11:2)

1. Akademiya nauk SSSR. Matematicheskii institut, Leningradskoye otdeleniye.
(Seismometry)

AGEYEV, N.V.; SMIRNOVA, Z.M.

Stability of the beta phase in titanium-manganese alloys. Titan
i ege splavy no. 1:17-24 '58. (MIRA 14:5)

1. Institut metallurgii AN SSSR.
(Titanium-manganese alloys—Metallography)
(Phase rule and equilibrium)

5(2), 18(4)
AUTHORS:

Ageyev, N. V., Smirnova, Z. M.

SOV/78-4.5-26/46

TITLE:

Conditions for the Stabilization of the β -Phase
in Alloys of Titanium-Molybdenum-Manganese
(Usloviya stabilizatsii β -fazy v splavakh titan-molibden-
-manganets)

PERIODICAL:

Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 5,
pp 1100-1105 (USSR)

ABSTRACT:

The conditions for the stabilization of the β -phase and the stability of the metastable state in three-component alloys consisting of magnesium-thermal titanium with molybdenum and manganese were investigated. For the purpose of producing the alloys, magnesium-thermal titanium, electrolytic manganese, and molybdenum were used as initial materials. The compositions of the initial materials are given in table 1. The alloys were produced in an electric arc furnace with tungsten electrodes in a helium atmosphere. The alloys were investigated by metallographical and X-ray analyses. Hardness and microhardness were determined. Figure 1 shows the phase composition of the titanium-molybdenum-manganese alloys. The phase composition of titanium-molybdenum-manganese alloys

Card 1/4

Conditions for the Stabilization of the β -Phase
in Alloys of Titanium-Molybdenum-Manganese

SOV/78-4-5-26/46

hardened at temperatures of 700°, 800°, 900° and 1000° is shown by figure 2 (a - g). Stabilization of the β -phase in hardened alloys was investigated; a diagram was constructed and is shown in figure 3. In alloys containing a minimum of 3.76 % manganese and 26.95 % molybdenum, or 11.78 % molybdenum and 15.89 % manganese the β -phase is stabilized by hardening at 700°. In other alloys, which were hardened at 700°, the structure of the α - and β -phase is formed. In alloys with the minimum content of 3.61 % manganese and 12.81 % molybdenum and 7.63 % manganese and 1.59 % molybdenum the β -phase is stabilized by hardening at 800°. In alloys with a lower content of molybdenum and manganese the structure of the α - β -phase is formed by hardening at 800°. The microstructure of these alloys is shown by figure 4 (a - b). In alloys with 3.19 % manganese and 9.51 % molybdenum, 4.50 % manganese and 1.43 % molybdenum, 5.02 % manganese and 4.39 % molybdenum the β -phase decays by hardening at 900°, in which case the ω -phase is formed.

Card 2/4

Conditions for the Stabilization of the β -Phase
in Alloys of Titanium-Molybdenum-Manganese

SOV/78-4-5-26/46

The ω -phase was uniquely determined by X-ray analyses and by means of an electron microscope. The X-ray pictures of the alloys of titanium with 7.63 % manganese and 1.59 % molybdenum after hardening at 800° are shown by figure 5, and those of alloys of titanium with 5.02 % manganese and 4.59 % molybdenum after hardening at 900° are shown by figure 7. On the X-ray pictures the lines of the ω -phase are visible. In alloys containing 2.08 % manganese and 1.95 % molybdenum, and 3.07 % manganese and 3.74 % molybdenum the β -phase decays into the α -phase by hardening at 900°. The α -phase vanishes by hardening of the samples at a temperature of 1000°C. The stability of the β -phase when heated within the temperature interval of 100 - 600° was investigated. The microstructure of the titanium alloys containing 2.08 % manganese and 1.95 % molybdenum, hardened at 900° and 1000° is shown by figure 8. Here the occurrence of the β -phase is particularly marked. The microstructure

Card 3/4

Conditions for the Stabilization of the β -Phase
in Alloys of Titanium-Molybdenum-Manganese

SOV/78-4-5-26/46

of hardened titanium alloys containing 7.65 % manganese and 4.43 % molybdenum after heating for 64 hours at 600° and for 64 hours at 400° is shown by figure 10. The stability of the β -phase and the variation of hardness in titanium-molybdenum-manganese alloys are shown by figure 9 (a - e). The variation of the lattice parameter and the hardness of the β -phase by heating up to 300° and 500° is shown by figure 11 (a - b). In titanium alloys with 17.87 % manganese and 4.56 % molybdenum the β -phase becomes stabilized when heated from 100 - 500° in the course of 100 hours. There are 11 figures, 1 table, and 5 references, 2 of which are Soviet.

SUBMITTED: February 11, 1958

Card 4/4

... .., 1964, prof., methodology of analysis.

Physiology of the motor analyzer. Pch. zap. Ped. inst. Gorkis.
(MIRA 12:3)
139:93-97 164.

1. SMIRNOVA, Z. N.
2. USSR (600)
4. Mosses - Kuril Islands
7. New species of the genus Drepanocladus from the Kuril Islands. Bot. mat. Otd. spor. rast. 8, 1952.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

SMIRNOVA, Z.N.

New species of the genus *Drepanocladus* (C.Müll.) Roth -
Drepanocladus lapponicus (Norrl.) Z.Smirn. Trudy Bot.inst.
Ser. 2 no.8:403-415 '53. (MLRA 7:1)
(Mosses)

SMIRNOVA, Z.N.

New varieties of species of the genus Drepanocladus (C.Müll.)
Roth (Formae specierum novae generis Drepanocladus (C.Müll.)
Roth). Bot.mat.Otd.spor.rast. 9:188-198 My '53. (MLRA 7:2)
(Mosses)

BOGDANOV, P.L., professor [author]; SAVICH-LYUBITSKAYA, L.I.; SMIRNOVA, Z.N. [reviewers].

"Guide to forest sporophytes of the grass and moss cover." P.L. Bogdanov.
Reviewed by L.I. Savich-Lyubitskaia, Z.N. Smirnova. Bot. zhur. 38 no. 4: 613-617 J1-Ag '53. (MLA 6:9)

1. Botanicheskiy institut im. V.L. Komarova Akademii nauk SSSR, Leningrad
(for Savich-Lyubitskaya and Smirnova).
(Bogdanov, P.L.) (Mosses)

SMIRNOVA, Z. N. --

Dissertation: "The Genus *Drepanocladus* (C. Muell) Roth." (Short summary given.) Dr Biol Sci, Inst of Botany imeni V. L. Komarov, Acad Sci USSR, Jan-Mar 54 (Vestnik Akademii Nauk, Moscow, Aug 54)

SO: SUM 393 28 Feb 1955

SMIRNOVA, Z.N.

Identity of *Drepanocladus brachiatus* (Mitt.) Dix. and *D. longi-*
folius (Wils.) Williams. Bot.mat.Otd.spor.rast. 11:219-228 Ja
'56. (MLRA 9:11)

(MOSSES)

SMIRNOVA, Z.N.

Mosses of the Yakutsk A.S.S.R. Bot.mat.Otd.spor.rast. 11:228-235
Ja '56. (MLBA 9:11)
(Yakutia--Mosses)

SMIRNOVA, Z.N.

Does *Drepanocladus uncinatus* (Hedw). Warnst. deserve to be established
as an independent genus? Bot.zhur 41 no.10:1499-1503 0 '56.
(MIRA 10:1)

1. Botanicheskiy institut imeni V.L. Komarova Akademii nauk SSSR,
Leningrad.

(Mosses) (Botany--Classification)

SMIRNOVA, Z.N.
ABRAMOVA, A.L.; SMIRNOVA, Z.N.

L.I. Savich-Liubitskaia; on her 70th birthday. Bot.zhur. 41 no.10:1555-
1564 0 '56. (MLRA 10:1)

1. Botanicheskiy institut imeni V.L.Komarova Akademii nauk SSSR,
Leningrad.

(Savich-Liubitskaia, Lidia Ivanovan, 1886-)
(Bibliography--Mosses)

SMIRNOVA, Z.N.

"On the spore morphology of some Sphagnum species" (from "The Bryologist," 58, no.4, 1955). Bot.zhur. 42 no.3:479-480 Mr '57.

1. Botanicheskiy institut im. V.L. Komarova Akademii nauk SSSR,
Leningrad.

(Mosses) (Spores (Botany))

SMIRNOVA, Z.N.

~~Lyellia R.Br., a new genus in the moss flora of the U.S.S.R.~~
Bct. zhur. 43 no.6:850-855 Je '58. (MIRA 11:7)

1. Botanicheskiy institut im. V.L. Komarova Akademii nauk SSSR,
Leningrad.

(Verkhoyansk Range--Mosses)

SMIRNOVA, Z.N.

Bryophyte flora in the Arctic regions of Yakutia and the Far East.
Trudy Bot. inst. Ser. 2 no.12:274-300 '59. (MIRA 12:12)
(Yakutia--Bryophytes) (Soviet Far East--Bryophytes)

SMIRNOVA, Z. N.

Note on *Mnium micro-ovale* C. Mull. and *Mnium coriaceum* Griff.
Bot. mat. Otd. spor. rast. 12:282-290 Ja '59. (MIRA 12:12)
(Kedrovka Valley--Mosses)

SAVICH-LYUBITSKAYA, L.I., doktor biol.nauk; SMIRNOVA, Z.N., doktor biol.nauk

A new variant of Bryum Korotkevichiae Sav.-Ljub.et Z.Smirn.
Inform.biul.Sov.antark.eksp. no.17:2527 '60. (MIRA 13:12)

1. Botanicheskiy institut AN SSSR.
(Bunger Hills region--Mosses)

ABRAMOVA, A.L.; SAVICH-LYUBITSKAYA, L.I.; SMIRNOVA, Z.N.; SAVICH, V.P.,
doktor biolog. nauk, prof., zasl. ~~deyatel'~~ nauki RSFSR, otv.
red.; BOCHEVER, V.T., tekhn. red.

[Guide to the frondiferous mosses of the Arctic regions of the
U.S.S.R.] Opredeletel' listostebel'nykh mkhov Arktiki SSSR. Pod
red. L.I.Savich-Liubitskoi. Moskva, Izd-vo Akad.nauk SSSR, 1961.
714 p. (MIRA 15:2)

(Arctic regions--Mosses)

SMIRNOVA, Z.N.

New forms of *Drepanocladus Sendtneri* (Schimp.) Warnst. and
Dr. aduncus (Hedw.) Mönkem. Bot. mat. Otd. spor. rast. 14:
268-275 Ja'61. (MIRA 17:2)

SMIRNOVA, Zoya Nikolayevna; PEN'KOVA, G.A., red.;

[Fodder lichens in the Far North of the U.S.S.R.; a
concise guide] Kormovye lishainiki Krainego Severa SSSR;
kratkii opredelitel'. Leningrad, Sel'khozizdat, 1962. 69 p.
(MIRA 17:3)

SAVICH-LYUBITSKAYA, L.I.; SMIRNOVA, L.N.

An endemic moss of Antarctica, *Sarcodon placidula* (Hook. fil. et
Wils.) Card. et Bryhn. Issl. fauny ant. 1:296-300 '62. (MIRA 19:2)

1. Botanicheskiy institut AN SSSR.

SMIRNOVA, Z.N.

Sections of the genus Drepanocladus (C. Müll.) Roth. Bot. mat.
Otd. spor. rast. 15:170-185 Ja '62. (MIRA 15:10)
(Drepanocladus)

SAVICH-LYUBITSKAYA, L.I.; SMIRNOVA, Z.N.

Representatives of the genus *Pottia* Fuernr. in Antarctica.
Bot. mat. Otd. spor. rast. 16:188-195 '63. (MIRA 16:10)

SAVICH-LYUBITSKAYA, L. I.; SMIRNOVA, Z. N.

Biology and geography of *Bryoerythrophyllum recurvirostre*
(Hedw.) Chen, a new species in the moss flora of Antarctica.
Bot. zhur. 48 no.3:350-361 Mr '63. (MIRA 16:4)

1. Botanicheskiy institut imeni V. L. Komarova AN SSSR,
Leningrad.

(Antarctic regions--Mosses)

SMIRNOVA, Z.O., kand.med.nauk

Medicinal prevention of excessive hemorrhages in the placental
and early postpartum periods. Ped., akush. i gin. 24 no.1:
49-51'62. (MIRA 16:8)

1. Otdel akusherstva i ginekologii (zav. - kand.med.nauk L.T.
Volkova) Khar'kovskogo nauchno-issledovatel'skogo instituta
okhrany materinstva i detstva (direktor - kand.med.nauk O.I.
Kornilova).

(HEMORRHAGE, UTERINE)

87028

158106

S/190/60/002/007/010/017
B020/B052

AUTHORS: Smirnova, Z. S., Serenkov, V. I.

TITLE: The Mechanism of Thermal Hardening of Phenol-formaldehyde Resins

PERIODICAL: Vysokomolekulyarnyye soyedineniya, 1960, Vol. 2, No. 7, pp. 1067-1070

TEXT: It was the purpose of this paper to study the behavior of hydroxyl groups in phenol by means of a stable isotope, during the hardening process of resolic phenol-formaldehyde resins. Therefore a resolic phenol-formaldehyde resin with a molar ratio of $C_6H_5OH : CH_2O = 6 : 7$ was produced in the presence of catalyst NaOH. The unreacted phenol and formaldehyde were precipitated by dissolving the resin in alcohol 8-10 times, and by pouring it into distilled water. At the same time, low-molecular condensation products were removed. Then the resin was dried until weight constancy was reached. It was analyzed and its content of free phenol and formaldehyde, hydroxyl and methylol groups, and the rate of hardening at

Card 1/3

The Mechanism of Thermal Hardening of Phenol-formaldehyde Resins

87028

S/190/60/002/007/010/017
B020/B052

160°C were determined. The analyses were carried out according to the method of the analytical laboratory of NIIplastmass (Nauchno-issledovatel'skiy institut plasticheskikh mass (Scientific Research Institute of Plastics)), and the results are given. On the basis of the papers by A. I. Brodskiy (Ref. 2), the hydrogen and the hydroxyl group of phenol was replaced by deuterium through rearrangement of the hydrogen. A resin was obtained with a 38-40% hydrogen substitution in the hydroxyl group of phenol. The deuterium content in water during the combustion of the resin was 0.8%. The results of the deuterium determination carried out by the spot method for the determination of its concentration variation during the resin hardening process (Table 1) show that water with an increased D₂O content is separated during the hardening of phenol-formaldehyde

resols. The behavior of the hydroxyl groups of Novolak resins heated up to 350°C was also studied. Table 2 gives the change of the deuterium content in Novolak resins during heating. It shows that the hydroxyl group undergoes no changes when heated up to 180°C or even 250°C. Heating to 350°C increases the amount of liberated deuterium up to 19-20% of the original deuterium content in the resin. This is due to the noticeable

Card 2/3

87028

The Mechanism of Thermal Hardening of Phenol-
formaldehyde Resins

S/190/60/002/007/010/017
B020/B052

destruction of the resin which also affects the hydroxyl groups.
There are 2 tables and 13 references; 6 Soviet, 5 US, and 2 German.

ASSOCIATION: Nauchno-issledovatel'skiy institut plasticheskikh mass
(Scientific Research Institute of Plastics)

SUBMITTED: March 15, 1960

Card 3/3

1. KUZNETSOVA, V. A. and SMIRNOVA, Z. S.
2. USSR (600)
4. Microorganisms
7. Effect of hydrocarbonic microflora on the composition of the gas specimen. [Abstract]
Izv.Glav.upr.geol.fon. no. 3, 1947.

9. Monthly List of Russian Accessions, Library of Congress, March 1953, Unclassified.

1. KUZNETSOV, S. I. and KUZNETSOVA, V. A. and SMIRNOVA, Z. S.
2. USSR (600)
4. Microorganisms
7. Study of the processes of oxidation by bacteria of hydrocarbon gases under conditions of their diffusion through sedimentary rock. Izv.Glav.upr.geol.fon. no. 3, 1947.
9. Monthly List of Russian Accessions, Library of Congress, March 1953, Unclassified.

Country : USSR
 Category : Microbiology. Geological Activity of Microorganisms.
 Abs. Jour : Ref Zhur-Biol., No 23, 1958, No 105687
 Author : Smirnova, Z. S.
 Institut. : --
 Title : Determination of the Limit of Penetration of Bacteria
 From Clay Mortar into the Core of Different Rocks
 Orig. Pub. : Mikrobiologiya, 1957, 26, No 6, 745-749
 Abstract : Fluid from drilling a well during a search for oil
 contained a heterogeneous bacterial flora. In the
 clay mortar bacteria were found which oxidize liquid
 and gaseous hydrocarbons and hydrogen, which form
 methane from carbon dioxide and hydrogen, and also
 from fatty acids, which reduce sulfates and which
 decompose tissue, etc. For the purpose of establishing
 the limit of penetration of bacteria into the core, a
 culture of Bacterium prodigiosum was introduced into
 circulating clay mortar; this bacterium is usually not
 found in the core. It was established that the pene-
 tration of Bact. prodigiosum into the center of the core
 Card: 1/2

F-18

SMIRNOVA, Z.S.

Effect of microbiological processes on gas composition in drilling
muds. Trudy VNIGNI no.11:176-184 '58. (MIRA 13:1)
(Oil well drilling fluids) (Gas, Natural--Bacteriology)

TELEGINA, Z.P.; SMIRNOVA, Z.S.

Effect of organic substances on the intensity of propane oxidation
in *Mycobacterium lacticolum* and *Pseudomonas* species. Trudy Inst.
mikrobiol. no. 6:110-115 '59. (MIRA 13:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologo-razvedochnyy
neftyanoy institut.

(MYCOBACTERIUM LACTICOLUM) (PSEUDOMONAS) (PROPANE)

SMIRNOVA, Z.S.

Control method for a microbiological study of deep-seated rocks.
Geol. nefti i gaza 5 no.12:49-52 D '61. (MIRA 14:11)

1. Vsescyuznyy nauchno-issledovatel'skiy geologorazvedochnyy
neftyanoy institut.
(Rocks, Sedimentary--Bacteriology)

SMIRNOVA, Z.S.

Relation of methane- and propane-oxidizing bacteria to different
nitrogen sources. Mikrobiologiya 31 no.6:980-983 N-D '62.
(MIRA 16:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologo-razvedochnyy
naftyanoy institut, Moskva.

(MYCOBACTERIUM) (PSEUDOMONAS) (NITROGEN)

PATRIKEYEV, V.V.; SMIRNOVA, Z.S.; MAKSIMOVA, G.I.

Some biological properties of specifically formed silica gel.
Dokl. AN SSSR 146 no.3:707-709 S '62. (MIRA 15:10)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
Predstavleno akademikom A.A.Balandinym.
(Silica)

L 40821-65 EWT(m)/EPF(c)/EWP(j) - Pc-4/Pr-4 - RM/GS S/0000/64/000/000/0062/0066
 ACCESSION NR: AT5008846

26
 25
 B+1

AUTHOR: Smirnova, Z. S.

TITLE: Specificity of propane oxidizing bacteria

SOURCE: Vsesoyuznyy nauchno-issledovatel'skiy institut yadernoy geofiziki i geokhimii. Pryamyie metody poiskov nefiti i gaza; neftepoiskovaya geokhimiya (Direct methods of prospecting for oil and gas; oil prospecting geochemistry). Moscow, Izd-vo Nedra, 1964, 62-66

TOPIC TAGS: bacteriology, propane, oxidation, geochemistry

ABSTRACT: Most anomalies in the distribution of propane oxidizing bacteria in the subterranean waters of various regions of the USSR coincide with petroleum and natural gas deposits. The author presents the results of research performed in 1960 at VNIGNI. In analyzing the physiology of the nutrition of propane oxidizing bacteria, the following topics were studied: a) the relationship of propane oxidizing bacteria to the organic source of carbon; b) the development of propane oxidizing bacteria in propane in the presence of organic matter; c) oxidizing of propane after cultivation in organic media. Experiments with nine pure cultures of

Card 1/2

L 40821-65
ACCESSION NR: AT5008846

propane oxidizing bacteria have shown that 1) propane oxidizing bacteria are capable of multiplying on many organic substances, but prefer propane as a source of carbon; 2) addition of organic matter lowers the oxidizing capacity of these bacteria; 3) after lengthy presence in an organic media propane oxidizing bacteria lose their propane oxidizing characteristics; 4) all these characteristics indicate the specificity of propane oxidizing bacteria. The use of these microorganisms as indicators in oil and natural gas prospecting is recommended. Orig. art. has: 3 tables.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut yadernoy geofiziki i geokhimii (All-Union Scientific Research Institute of Geophysics and Geochemistry)

SUBMITTED: 10Sep64

ENCL: 00

SUB CODE: ES, FP

NO REF SOV: 007

OTHER: 004

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Card 2/2

L 41610-65

ACCESSION NR: AT5008847

S/0000/64/000/000/0067/0071

AUTHOR: Smirnova, Z. S.

13
B+1

TITLE: Microbiological investigation of surface deposits of the Korobki natural gas and oil fields

SOURCE: Vsesoyuznyy nauchno-issledovatel'skiy institut yadernoy geofiziki i geokhimii. Pryamyye metody poiskov nefiti i gaza; neftepoiskovaya geokhimiya (Direct methods of prospecting for oil and gas; oil prospecting geochemistry). Moscow, Izd-vo Nedra, 1964, 67-71

TOPIC TAGS: microbiology, oil, gas, bacteriology, geochemistry

ABSTRACT: The author investigates the theory that soils bearing hydrocarbon gases are most suitable for the development of hydrocarbon oxidizing bacteria. Microbiological research of soil and subsoil deposits was done at the Korobki natural gas and oil fields of the Volgograd oblast. It was found that: 1) the number of saprophitic bacteria in the surface deposits cannot serve as a criterion for the oil and gas bearing characteristics of that area since this number depends to a great extent on the organic matter in the soil and on several other factors (moisture, lithological composition of the soil, etc.); 2) the distribution of hydro-

Card 1/2

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carbon oxidizing bacteria in surface deposits is connected with oil and natural gas phenomena: propane oxidizing bacteria are found only on the surface above oil and gas bearing strata, methane oxidizing bacteria are more widely distributed, but are also predominant in the gas and oil bearing strata, 3) the absence of propane and methane oxidizing bacteria in the surface deposits beyond the oil and gas strata where a large number of bacteria are observed growing on sarcopetone agar, indicates the specificity of hydrocarbon oxidizing bacteria. Orig. art. has: 5 tables.

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Card 2/2

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SMIRNOVA, Z.S.

Methods of quantitative assay of hydrocarbon oxidizing bacteria.
Mikrobiologiya 33 no.4:737-738 J1-Ag '64. (MIRA 18:3)

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Modern designs of clarifiers with suspended precipitation.
Sbor. nauch. rab. asp. AKKH no.1:70-84 '59. (MIRA 14:7)
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DELYAGIN, G.N.; SMIRNOVA, Z.V.

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Cand Med Sci - (diss) "Study of the function of the pancreas in patients with ulcerous affection of the stomach and the duodenum and chronic gastritis before and after conservative treatment." Sverdlovsk, 1961. 11 pp; (Sverdlovsk State Med Inst); 260 copies; price not given; (KL, 7-61 sup, 262)

KRIVONOS, S.I.; BONDARENKO, I.V.; FARBBERG, M.I.; SMIRNOVA, L.V.

production of alkynaphthalenes. Usp. khimii 5 no. 5: 856-862
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Submitted Jan. 20, 1965.

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History of the "Serp i Molot" Metallurgical Plant in Moscow.
Trudy Inst.ist.est.i tekhn. 25:249-262 '59.(MIRA 13:4)
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KARABASH, A.G.; PRYZULAYEV, Sh.I.; SLYUSAREVA, R.L.; SOTNIKOVA, H.P.;
SMIRNOVA-AVERINA, N.I.; SAMSONOVA, Z.N.; KRAUZ, L.S.; MOROZOVA, G.G.;
ROMANOVICH, L.S.; SMIRENKINA, I.I.; LIPATOVA, V.M.; SAZANOVA, S.K.;
PUGACHEVA, L.I.; USACHEVA, V.P.; VORONOVA, Ye.P.; GORBACHEV, P.D.;
KOSTAREVA, F.A.; KOSTAREVA, N.T.; YELOVATSKAYA, A.I.; KUZNETSOVA, N.N.

Spectrochemical analysis of pure metals for impurities. Fiz.
sbor. no.4:556-562 '58. (MIRA 12:5)
(Spectrochemistry)

AUTHORS: Peyzulayev, Sh.I., Karabash, A.G., Krauz, L.S., 32-24-6-19/44
Kostareva, F.A., Smirnova-Averina, N.I.,
Babina, F.L., Kondrat'yeva, L.I., Voronova, Ye.F.,
Meshkova, V.M.

TITLE: Spectral Methods for the Determination of Admixture Traces
(Spektral'nyye metody opredeleniya sledov primesey).
I. Chemical Spectral Methods of Analyzing Strontium, Chromium,
and Silicon (I. Khimiko-spektral'nyye metody analiza strontsiya,
khroma i kremniya), II. The Quantitative Spectral Analysis of
Water and Microsamples on the Basis of Strontium Nitrate
(II. Kolichestvennyy spektral'nyy analiz vody i mikroobraztsov
na osnove nitrata strontsiya)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol 24, Nr 6, pp 723-731 (USSR)

ABSTRACT: In the course of the present work analysis methods are investi-
gated in which sensitivity is increased by previous enrichment and
which make it possible to determine a larger number of admixtures.
From the analysis of strontium, which is described in detail, it
follows that determination is based upon a formation of strontium
sulfate and that 18 elements can be determined by means of one

Card 1/4

Spectral Methods for the Determination of Admixture Traces.
I. Chemical Spectral Methods of Analyzing Strontium,
Chromium, and Silicon. II. The Quantitative Spectral Analysis
of Water and Microsamples on the Basis of Strontium Nitrate

32-24-6-19/44

spectrogram, in which case sodium is determined separately. Analysis sensitivity is shown by a table, and the preparation of samples and the spectral analysis itself are described. From the data concerning the determination of chromium it follows e.g., that chromium is volatilized in form of CrO_2Cl_2 , that practically complete (99.7%) volatilization is attained at $200-220^\circ$, and that at the same time only arsenic, boron, germanium, tin, and mercury are removed. In the case of a low content of admixtures analysis was carried out already after the first concentration, whereas in the case of a higher percentage ($10^{-1} - 10^{-2}\%$) also the second concentrate was examined. The analysis is described. The analysis of silicon is based upon its volatilization in form of fluorides; also in this case the concentrate of the admixtures is produced on the basis of a spectrally pure strontium sulfate, and also in this case 18 elements can be determined simultaneously by means of one spectrogram, sodium being determined separately. The process of analysis is described, and it is said, among other things, that the method was worked out in 1955 for the

Card 2/4

Spectral Methods for the Determination of Admixture Traces.
I. Chemical Spectral Methods of Analyzing Strontium,
Chromium, and Silicon. II. The Quantitative Spectral Analysis
of Water and Microsamples on the Basis of Strontium Nitrate

32-24-6-19/44

determination of elementary silicon.

II. The method is based upon application of the sample solution on to spectrally pure strontium nitrate powder, drying, and spectral analysis; it is possible, on the one hand, to examine the organic impurities existing in water, and, on the other, to analyze the composition of various microsamples. In the analysis of water it is possible to determine 12 elements by means of one spectrogram, including the ordinary admixtures found in water as well as corrosion products. The process of analysis is described as well as the manner in which etalons and the spectrally pure strontium nitrate are prepared. By the method described it is possible to determine 26 elements by the analysis of microsamples. Analysis is described, and it is said, among other things, that the relative sensitivity in determining components and admixtures depends on the weighed in portion of the microsample and the strontium nitrate; corresponding data are given by a table. By comparative determinations carried out on a strontium nitrate-

Card 3/4

Spectral Methods for the Determination of Admixture Traces.
I. Chemical Spectral Methods of Analyzing Strontium,
Chromium, and Silicon. II. The Quantitative Spectral Analysis
of Water and Microsamples on the Basis of Strontium Nitrate

32-24-6-19/44

and beryllium oxide basis the fact was established that both varieties of the method work with a relative error of $\pm 15-20\%$, and that frequently a weighed portion of 0.1-50 mg is sufficient. There are 2 figures, 6 tables, and 14 references, 6 of which are Soviet.

1. Spectrum analyzers--Performance
2. Minerals--Analysis
3. Minerals--Determination
4. Water--Impurities
5. Water--Spectra
6. Strontium nitrate spectrum--Applications

Card 4/4

PHASE I BOOK EXPLOITATION 305/3443

Atskrytyy sark SSSR. Komissiya po analiticheskoj khimii
Metody opredeleniya primestey v chistykh metallakh (Methods of determining admix-
tures in pure metals) Moscow, 1960. 411 p. (Series: Itz: ITUZY, 12) 3,500
copies printed.
Resp. Eds.: A.P. Vinogradov, Academician, and D.I. Rybchikov, Doctor of Chemical
Sciences; Ed. of Publishing House: K.F. Volynets, Tech. Ed.: T.V. Polyakova.
PURPOSE: This collection of articles is intended for chemists, metallurgists, and
engineers.

CONTENTS: The articles describe methods for detecting and determining various ad-
mixtures and their traces in pure metals. Also discussed are many chemical,
physicochemical, spectrochemical, spectrochemical and luminescence methods of
analysis and methods of high purity. The editors state that these methods have
been developed within the last five or six years by various Soviet scientific
institutions, and are now widely used in research and factory laboratories of the
Soviet Union. No personalities are mentioned. References, mostly Soviet, to
accompany each article.

Melamed, Sh.G., and S.M. Solodovnik. Analysis of Bismuth for Determining Admixtures	172
Krasa, L.B., A.D. Karabash, Sh. I. Poyulayev, T.M. Lipatova, and V.B. Golova. The Spectrometric Method of Determining Admixtures in Metallic Bismuth and Its Compounds	175
Sinyakova, S.I., and Ye.E. Golyubovskiy. Determination of Small Quantities of Lead in Metallic Bismuth	197
Sinyakova, S.I., and L.A. Zvezdova. Determination of Admixtures of Cadmium, Silver, and Gold in Metallic Bismuth With the Aid of Dichloride	191
Sinyakova, S.I., and Ch.Ye. Erolov. Determination of Admixtures of Antimony, Iron, Manganese, and Tellurium in Bismuth	206
Rybchikov, D.I., and T.K. Polynova. Determination of Small Quantities of Rare-Earth Elements in Metallic Bismuth	217
Korovin-Romanov, S.P. Determination of Lithium in Bismuth	221
Kalyuga, D.P., and M.Y. Blyuzer (deceased). Polarographic Determination of Copper Admixtures in Metallic Bismuth	224
Philonov, L.Y., N.A. Mahalov, and Z.A. Sakhareva. Spectroanalytic De- termination of Admixtures in Tungsten Compounds	227
Vasishchev, I.Ye, Yu.I. Polynov, and M.Y. Abramova. Methods of Spectral Determination of Cadmium, Antimony, Bismuth, Lead, and Tin in Tungsten and in Molybdenum	236
Karabash, A.D., Z.N. Sakhareva, M.Y. Sakhareva, and Sh.I. Poyulayev. Determination of Admixtures in Molybdenum and Its Compounds	255
Rybchikov, D.I., Ye.P. Golyubovskiy, and L.Y. Borisyeva. Method of Direct Determination of Lead, Cadmium, Bismuth, Antimony, and Tin in Molybdenum With the Aid of Oscilloscopic Polarography	265
Klyachko, Yu.A., Ye.M. Chelobakhova, and L.L. Kunin. Determination of Oxygen and Nitrogen in Molybdenum and in Chromium by the Vacuum-Fusion Method	281

Smileva-Averina, N.I.

KARABASH, A.G.; SAMSONOVA, Z.N.; SMIRNOVA-AVERINA, N.I.; PEYZULAYEV, Sh.I.

Impurities determination in molybdenum and its compounds. Trudy Kom.
anal. khim. 12:255-264 '60. (MIRA 13:8)

(Molybdenum—Analysis)

(Spectrum analysis)

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Reg. (Cotton) (Windbreaks, shelterbelts, etc.)